Patent Claims

1.   A method for transforming a picture area,
     in which, depending on a decision unit, firstly a
5   vertical transformation of the picture area and
     then a horizontal transformation of the picture
     area or, conversely, firstly the horizontal
     transformation and then the vertical
     transformation are carried out.
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2.   The method as claimed in claim 1,
     in which the picture area has an irregular
     structure.

15 3.   The method as claimed in claim 1 or 2,
     a)   in which, before or after the vertical
          transformation, the picture area is oriented
          along a horizontal line;
     b)   in which, before or after the horizontal
20   transformation, the picture area is oriented
          along a vertical line.

4.   The method as claimed in one of claims 1 to 3,
     in which at least one of the following mechanisms
25   is carried out by the decision unit:
     a)   if the picture area is present in the line
          interlacing method, firstly the horizontal
          and then the vertical transformation is
          carried out;
30   b)   that (horizontal or vertical) transformation
          is carried out first along which a
          correlation of pixels of the picture area is
          stronger.

35 5.   The method as claimed in one of the preceding
     claims,
     in which an additional dimension is taken into
     account in the transformation.

6. The method as claimed in claim 5,
in which the additional transformation is carried
out along a time dimension.

5   7. The method as claimed in one of the preceding
claims,
in which a side information item containing the
order of the transformations is generated by the
decision unit.

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8. The method as claimed in one of the preceding
claims,
in which the horizontal transformation follows
from the vertical transformation in that mirroring
15   on a 45-degree axis is carried out before the
transformation.

9. The method as claimed in one of the preceding
claims,
20   in which the vertical transformation follows from
the horizontal transformation in that mirroring on
a 45-degree axis is carried out before the
transformation.

25 10. The method as claimed in one of the preceding
claims,
for use in a coder for compression of picture
data.

30 11. The method as claimed in one of claims 7 to 10,
in which the side information item is used in a
decoder for decompression of the picture area.

12. The method as claimed in claim 10 or 11,
35   in which modes of operation of the coder and/or of
the decoder are determined according to an MPEG
standard or according to an H.26x standard.

13. The method as claimed in one of the preceding claims,

in which the transformation is a DCT transformation or an IDCT transformation which is

5 the inverse thereof.

14. An arrangement for transforming a picture area,

having a decision unit which is set up in such a way that, depending on a value determined by the decision unit, firstly a vertical transformation of the picture area and then a horizontal transformation of the picture area or, conversely, firstly the horizontal transformation and then the vertical transformation can be carried out.

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